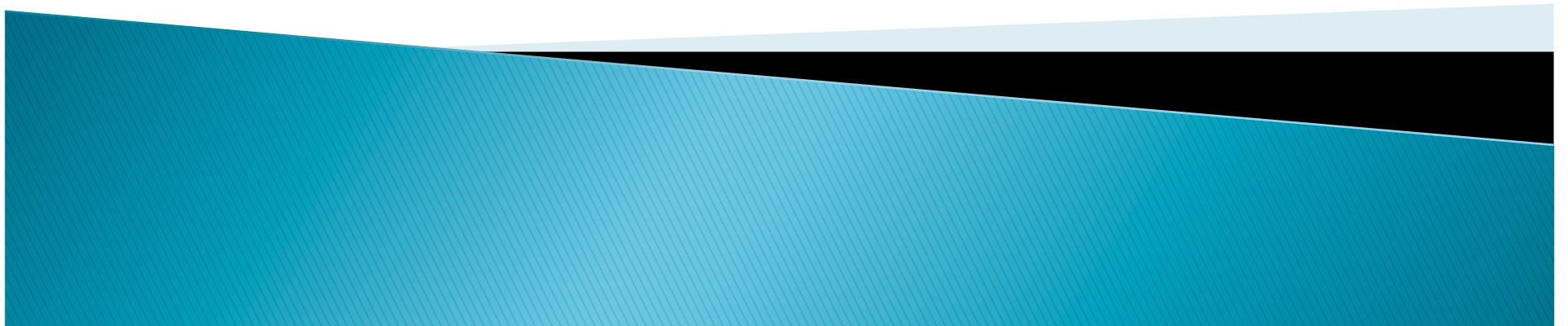


Renew Asheville

A community initiative to create jobs,
promote energy independence
and save money for businesses and families in Asheville



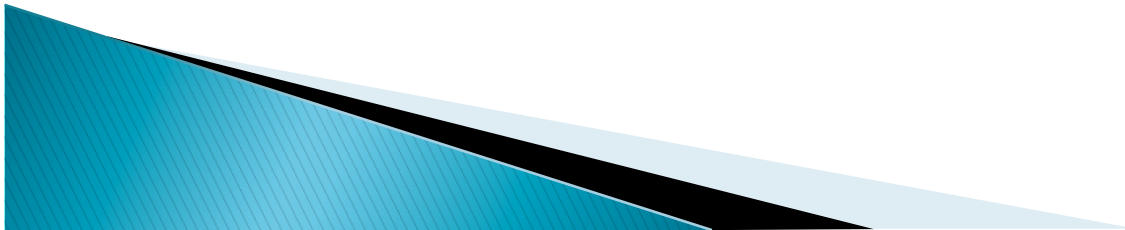
Opportunity and Need

- ▶ Buildings consume 39% of all energy in the United States and 68% of electricity.
- ▶ There are proven efficiency measures and renewable technologies to reduce fossil fuel energy use in a cost-effective manner.
- ▶ Innovative financing models have been developed to make implementation of energy efficiency measures simple and scalable.
- ▶ In 2009, NC Legislature provided specific authority to local governments to implement such programs.

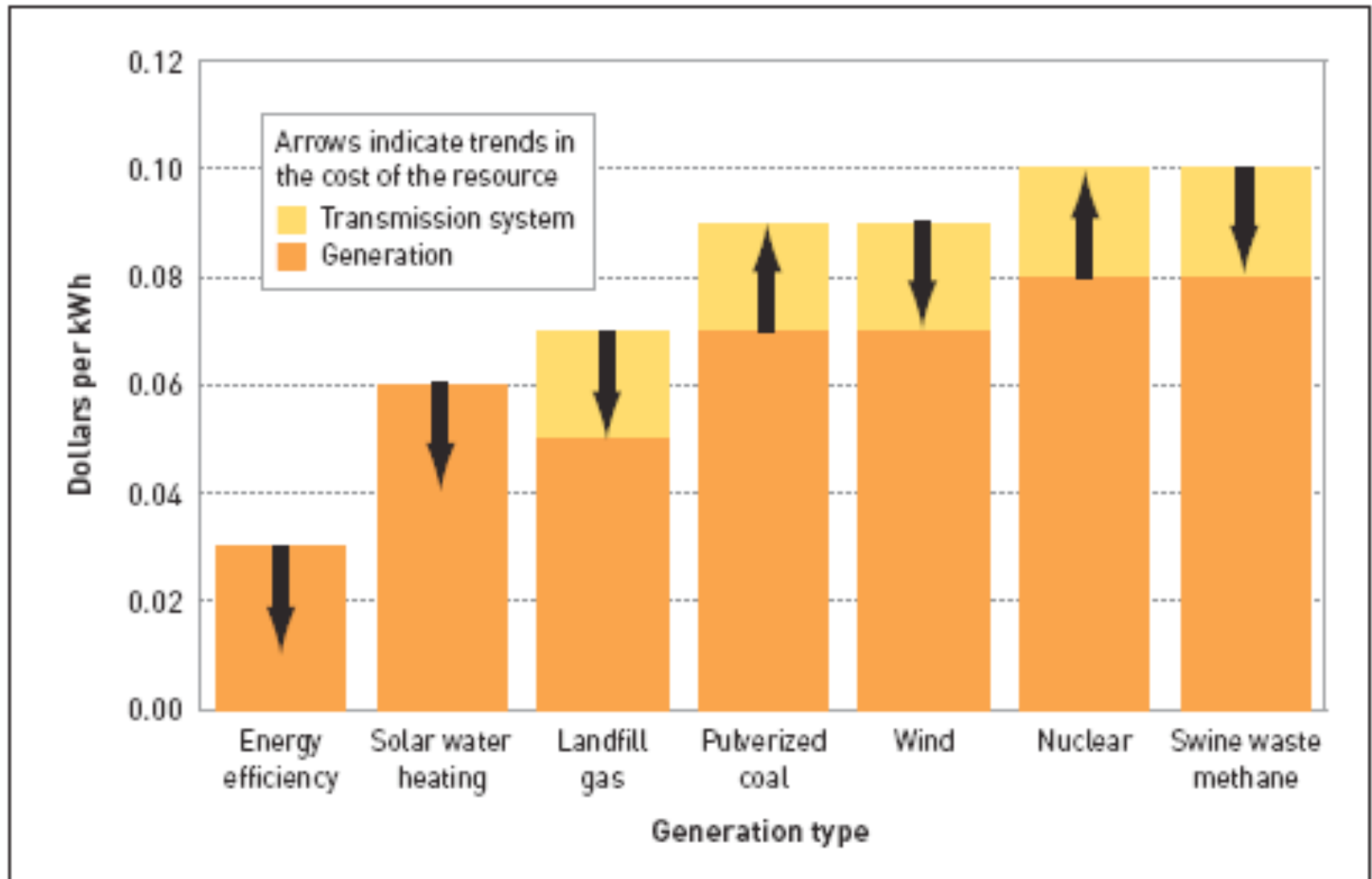


Asheville's Triple Bottom Line

- **People**—Improve public health by investing in clean energy technologies that reduce pollution from fossil fuel power plants and create new jobs in the green economy.
- **Planet**—Make Asheville a national leader in promoting clean energy systems that reduce global warming emissions;
- **Profits**—Save families and businesses in Asheville money by reducing their utility costs.



Cost comparison of electricity technologies



Progress Energy requests significant rate increases

WRAL.COM

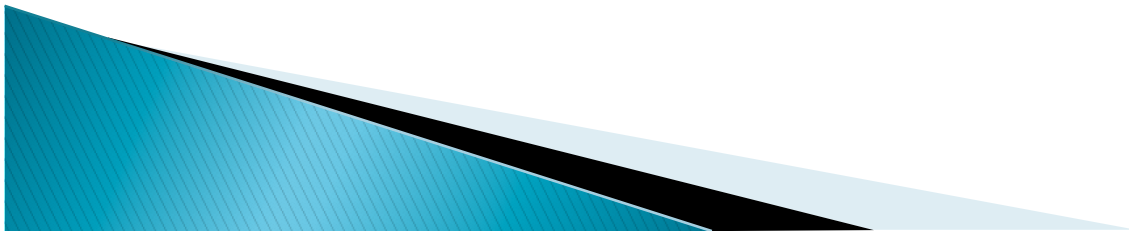
Posted: Jun 6, 2008

- ▶ Raleigh, N.C. — Citing the need to cover the soaring cost of fuel for power plants, Progress Energy has asked the state to approve a 16.2 percent rate increase.

The Raleigh-based utility filed a petition Friday with the North Carolina Utilities Commission to increase rates by about \$424 million.

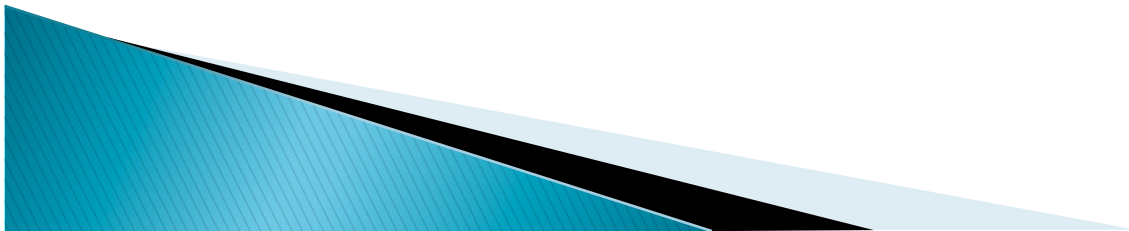
If approved, the increase would raise the average monthly bill to \$112.57 from the current \$98.86.

The Utilities Commission will likely have a public hearing on the request in the fall. If approved, it would take effect Dec. 1.



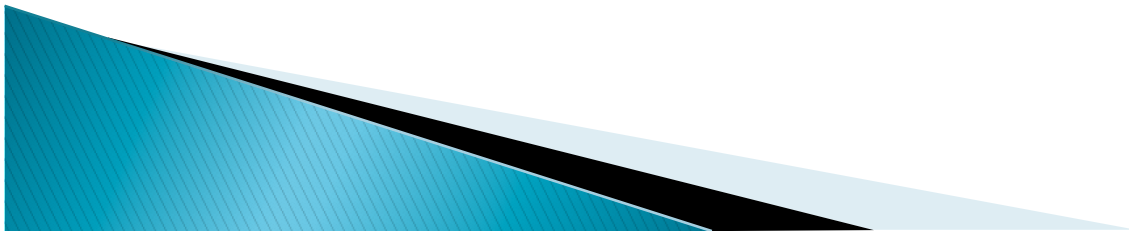
Program Design Concept

- ▶ Partnership between the City of Asheville and property owners who want to invest in energy efficiency improvements on their homes or places of business.
- ▶ City issues bonds or other financing instrument to create Renew Asheville Fund.
- ▶ Property owners access funds (\$5,000– \$20,000 for residential) to finance energy efficiency improvements.
- ▶ Repayment through 10– 15 year special assessment on property tax bill.
- ▶ Program should be revenue-neutral (or better) for government, taxpayers and participating families and businesses.



Program Design Concept

- ▶ Participation by property owners is voluntary.
- ▶ Only property owners who participate pay the assessment.
- ▶ Assessment revenues should be sufficient to repay principal and interest on municipal debt as well as administrative costs for managing the program.
- ▶ Energy savings should be equal to or greater than costs for paying the special assessment.

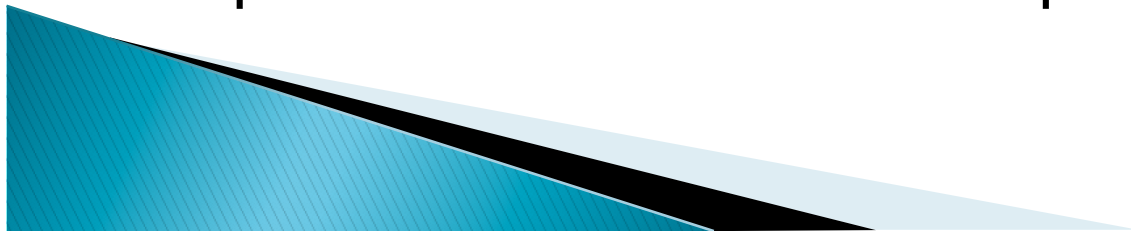


Energy efficiency technologies that have less than a 10 year payback

<u>Technology</u>	<u>ROI</u>	<u>Typical Payback Period</u>
▶ LowFlow Showerheads	100– 200%	1 year or less
▶ Sealing ductwork	50– 100%	1– 2 years
▶ Weather-stripping	35– 40%	2– 3
▶ Programmable thermostat	50–75%	3–3 years
▶ Attic insulation	15– 25%	4 – 6 years
▶ CFLs	50–75%	2–3
▶ LEDs	10– 15%	6– 10 years
▶ Motion-sensors	25– 50%	2– 4 years
▶ Solar thermal systems	10– 20%	5– 10 years
▶ HVAC upgrade	10– 20%	5– 10 years
▶ Geothermal	8– 15%	7– 12 years

Process for property owners to participate

1. Interested property owners fill out an application.
2. Property owner has an energy audit performed to identify opportunities for cost-effective energy efficiency measures.
3. Property owner applies for funding and receives approval.
4. Energy improvements for the home/ business are installed.
5. City issues funding after final permit approval and places assessment on the property.



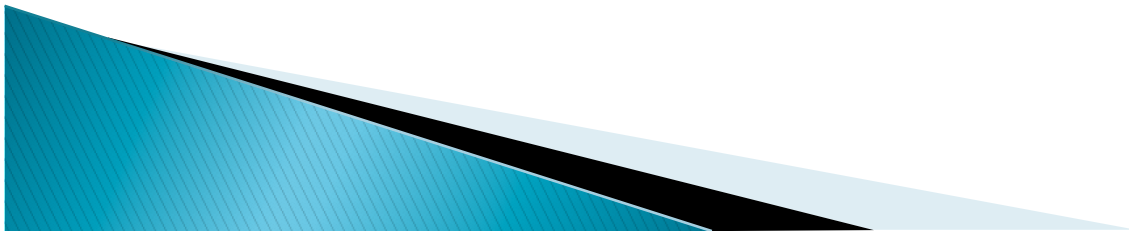
Benefits for Homeowners and Business Owners

- ▶ Eliminates upfront cost of energy project.
- ▶ Currently difficult to access credit.
- ▶ Special assessment transfers with property ownership
- ▶ Fixed repayment rate for 10– 15 years
- ▶ Reduction in utility expenses.



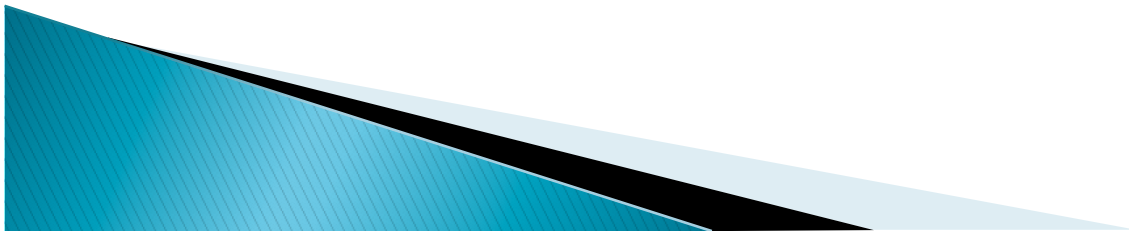
Benefits for City of Asheville

- ▶ Emissions from power plants are reduced.
- ▶ Pressure to construct additional power plants, which require a utility rate increases, is reduced.
- ▶ Create jobs in the community (energy audits, installation work, component manufacturing).
- ▶ Program is essentially self-funding.
- ▶ No liability to General Fund.



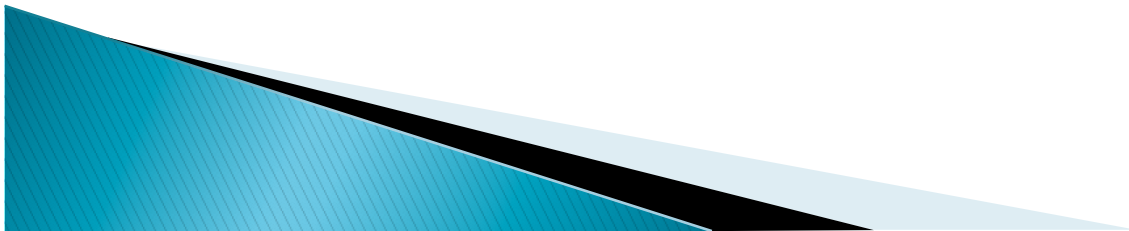
Advantages of Assessment v. Loan

- ▶ Assessment runs with property rather than individual. People defer energy investments because they do not know how long they will live in their home.
- ▶ Provides City with strong security interest to assure repayment.
- ▶ Simple, low-cost method of collecting funds.



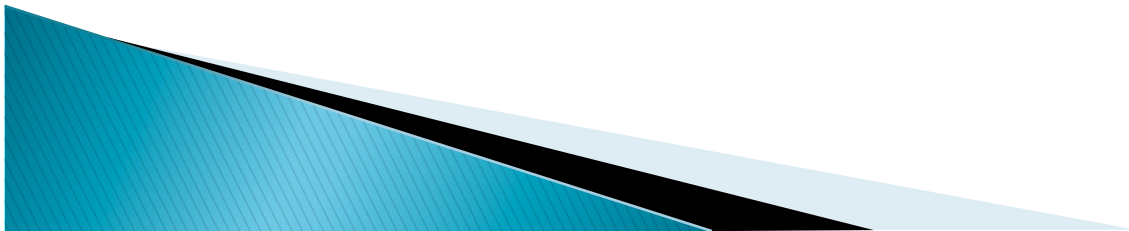
Case study: The Jones Family

- ▶ After energy audit, the Jones family applies for and receives \$10,000 from Renew Asheville Fund. Installs solar thermal system (\$6,500) attic insulation, improved windows and more efficient lighting (\$3,500).
- ▶ Homeowner receives solar tax credits (\$1,950 federal+\$1,400 NC) = \$3,350 total.
- ▶ Homeowner repays \$10,000 over a 15 year period at 6.25% interest = \$85 per month/ \$1020 per year.
- ▶ In year one, homeowner reduces energy costs by \$700 (assumes annual energy costs are \$2000 and achieves 35% reduction through \$10,000 investment).
- ▶ Over 15 years, home owner receives \$17,367 in energy benefits and tax credits (assumes 4% annual increase in cost of electricity/ natural gas).
- ▶ Over 15 years, homeowner pays \$15,420 to repay special assessment taxes, for a net benefit to homeowner of \$1,947.
- ▶ After year 15, homeowner continues to have lower energy payments but no longer makes any special assessment payments.



Jones Family Case Study from City Perspective

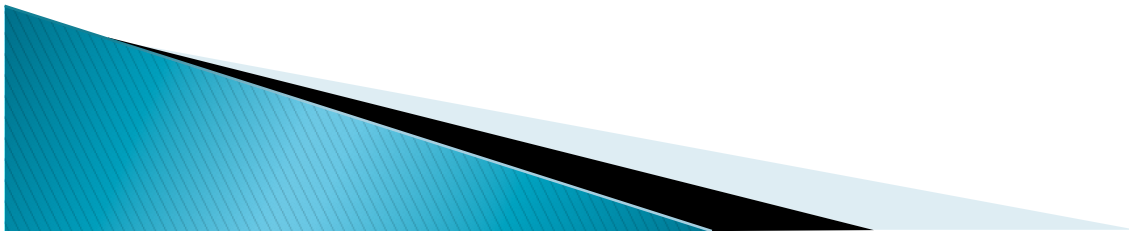
- ▶ City provides the Jones family with \$10,000 for energy improvements at 6.25% interest rate– receives \$1,028 per year in payments.
- ▶ City borrows funds at 4.25% interest rate– owes \$902 per year in debt payments.
- ▶ Makes \$126 per year in positive revenue to pay administrative costs of program. If 100 properties are include similar to the Jones, the city would generate \$12,600 in net revenues to pay the administrative costs of the program.
- ▶ Probably not revenue neutral at pilot project scale but could be as the project scales up.



Environmental Benefits

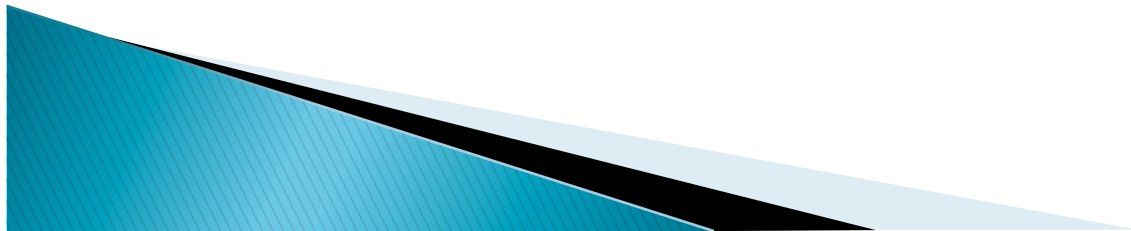
- ▶ Retrofitting 1,000 homes like the Jones' would reduce electricity use by 3,850,000 kWh per year and reduce natural gas use by 231,000 Therms.
- ▶ Carbon reduction equivalent of taking 1000 cars off the road or planting 40 acres of trees.

(assumes each home uses 1,100 kWh per year of electricity and 660 Therms of natural gas and that each are reduced by 35%)



Start Small >>>> Think Big

- ▶ Recommend launching Renew Asheville in 2010 with a pilot program. Monitor and evaluate results.
- ▶ If successful, scale-up the program in 2011 – 2012.
- ▶ If want to make a real impact on carbon footprint, peak power demand and job creation, we need to invest \$50 million or more in Renew Asheville over the next five years.
 - 2000 homes at \$15,000 each = \$30 million
 - 500 business at \$40,000 each = \$20 million



Questions to Consider

- ▶ What technologies should be eligible? A predetermined list of technologies that are approved by the City which are “proven” or should we allow whatever the energy audit indicates have the fastest payback?
- ▶ How to keep the program simple enough to be low-cost to administer yet assure funds are invested in a responsible manner consistent with program goals?
- ▶ Who will pay the costs for energy audits? The homeowner/business owner? The city?
- ▶ Opportunities to partner with Progress Energy to leverage one another’s energy efficiency programs to the greatest extent possible.
- ▶ Would the County be interested in participating or even leading the program, which would allow property owners throughout the County to participate?



Request of the Sustainable Advisory Committee for Energy and the Environment

- ▶ Adopt a resolution endorsing the Renew Asheville in principle and requesting that the Asheville City Council make implementation of a phase 1 pilot program a top priority for 2010.
- ▶ Work with key city staff, City Council and the community to help develop and implement the pilot program in 2010.
- ▶ Monitor and evaluate results of pilot program and advise City Council regarding opportunities to scale up the program.

